

# REQUEST FOR ACCESS OF ABANDONED APPLICATION UNDER 37 CFR 1.14(a)

RECEIVED  
JUN 18 2001  
File Information Unit

In re Application of	
Application Number 08/239978	Filed 5/9/94
Group Art Unit	Examiner

Paper No. #15

Assistant Commissioner for Patents  
Washington, DC 20231

I hereby request access under 37 CFR 1.14(a)(3)(iv) to the application file record of the above-identified ABANDONED application, which is: (CHECK ONE)

- ☒ (A) referred to in United States Patent Number 5835613 column \_\_\_\_\_
- ☐ (B) referred to in an application that is open to public inspection as set forth in 37 CFR 1.11, i.e., Application No. \_\_\_\_\_ filed \_\_\_\_\_ on page \_\_\_\_\_ of paper number \_\_\_\_\_
- ☐ (C) an application that claims the benefit of the filing date of an application that is open to public inspection, i.e., Application No. \_\_\_\_\_ filed \_\_\_\_\_ or
- ☐ (D) an application in which the applicant has filed an authorization to lay open the complete application to the public.

Please direct any correspondence concerning this request to the following address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Darlene Jones  
Signature  
DARLENE JONES  
Typed or printed name

6-18-01  
Date

FOR PTO USE ONLY

Approved by: gr  
(Initials)

Unit: F.I.U.

# United States Patent [19]

Breed et al.

[11] Patent Number: 5,835,613

[45] Date of Patent: Nov. 10, 1998

[54] OPTICAL IDENTIFICATION AND MONITORING SYSTEM USING PATTERN RECOGNITION FOR USE WITH VEHICLES

[75] Inventors: David S. Breed, Boonton Township, N.J.; Wilbur E. DuVall, Kimberling City, Mo.; Wendell C. Johnson, Torrance, Calif.

[73] Assignee: Automotive Technologies International, Inc., Denville, N.J.

[21] Appl. No.: 474,782

[22] Filed: Jun. 7, 1995

## Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 878,571, May 5, 1992, abandoned, Ser. No. 40,978, Mar. 31, 1993, abandoned, Ser. No. 247,760, May 23, 1994, and Ser. No. 239,978, May 9, 1994, abandoned.

[51] Int. Cl.<sup>6</sup> ..... G06K 9/00  
[52] U.S. Cl. .... 382/100; 382/104; 348/143  
[58] Field of Search ..... 340/436; 382/104, 382/103, 291, 100; 280/735; 348/143, 148

## References Cited

### U.S. PATENT DOCUMENTS

4,496,222 1/1985 Shah ..... 359/300  
4,625,329 11/1986 Ishikawa et al. .... 382/104  
4,648,052 3/1987 Friedman et al. .... 364/550  
4,720,189 1/1988 Heynen et al. .... 351/210  
4,768,088 8/1988 Ando ..... 358/93  
4,836,670 6/1989 Hutchinson ..... 351/210  
4,881,270 11/1989 Knecht et al. .... 382/191  
4,906,940 3/1990 Greene et al. .... 382/100  
4,950,069 8/1990 Hutchinson ..... 351/210  
4,966,388 10/1990 Warner et al. .... 280/730  
4,973,837 11/1990 Bradbeer ..... 250/221  
5,003,166 3/1991 Girod ..... 250/201.4  
5,008,946 4/1991 Ando ..... 382/104  
5,026,153 6/1991 Suzuki et al. .... 356/1  
5,064,274 11/1991 Alten ..... 359/604  
5,071,160 12/1991 White et al. .... 280/735  
5,074,583 12/1991 Fujita et al. .... 280/730.1

5,118,134 6/1992 Mattes et al. .... 280/735  
5,162,861 11/1992 Tamburino et al. .... 356/5.05  
5,181,254 1/1993 Schweizer et al. .... 382/100  
5,185,667 2/1993 Zimmermann ..... 348/143  
5,193,124 3/1993 Subbarao ..... 382/255  
5,214,744 5/1993 Schweizer et al. .... 395/11  
5,227,784 7/1993 Masamori et al. .... 340/903  
5,235,339 8/1993 Morrison et al. .... 342/159

(List continued on next page.)

## FOREIGN PATENT DOCUMENTS

342337 2/1991 Japan  
94/22693 10/1994 WIPO

## OTHER PUBLICATIONS

Derwent Abstract of German Patent Publication No. DE 42 11 556, Oct. 7, 1993.

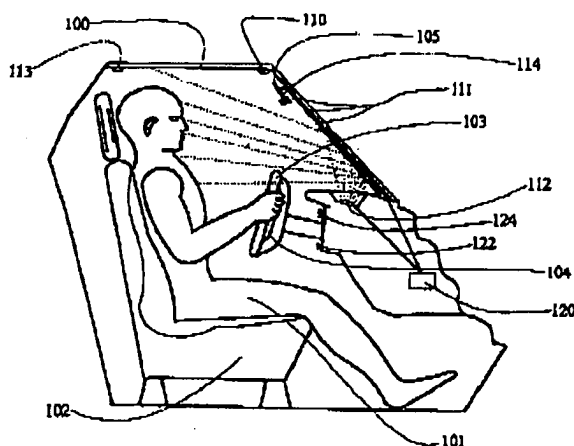
Derwent Abstract of Japanese Patent Application No. 02-051332, Nov. 13, 1991.

Primary Examiner—Yon J. Couso

## ABSTRACT

A vehicle interior monitoring system to identify, locate and monitor occupants, including their parts, and other objects in the passenger compartment and objects outside of a motor vehicle, such as an automobile or truck, by illuminating the contents of the vehicle and objects outside of the vehicle with electromagnetic, and specifically infrared, radiation and using one or more lenses to focus images of the contents onto one or more arrays of charge coupled devices (CCD arrays). Outputs from the CCD arrays, are analyzed by appropriate computational means employing trained pattern recognition technologies, to classify, identify or locate the contents or external objects. In general, the information obtained by the identification and monitoring system is used to affect the operation of some other system in the vehicle. When system is installed in the passenger compartment of an automotive vehicle equipped with an airbag, the system determines the position of the vehicle occupant relative to the airbag and disables deployment of the airbag if the occupant is positioned so that he/she is likely to be injured by the deployment of the airbag.

22 Claims, 12 Drawing Sheets



Don't

Need

Pls get

Don't

Need

5,835,613

Page 2

## U.S. PATENT DOCUMENTS

5,249,027 9/1993 Mathur et al. .... 356/3.14  
5,249,157 9/1993 Taylor ..... 340/903  
5,298,732 3/1994 Chen ..... 250/203.4  
5,305,012 4/1994 Faris ..... 345/7  
5,309,137 5/1994 Kajiwara ..... 340/436  
5,329,206 7/1994 Slotkowski et al. .... 315/159

5,330,226 7/1994 Gentry et al. .... 280/735  
5,339,075 8/1994 Abst et al. .... 340/903  
5,355,118 10/1994 Fukuhara ..... 340/435  
5,390,136 2/1995 Wang ..... 364/754  
5,441,052 8/1995 Miyajima ..... 128/661.09  
5,454,591 10/1995 Masur et al. .... 280/735  
5,537,003 7/1996 Bechtel et al. .... 315/82

Don't

Need

Don't

Need